



A1250 - Actuator

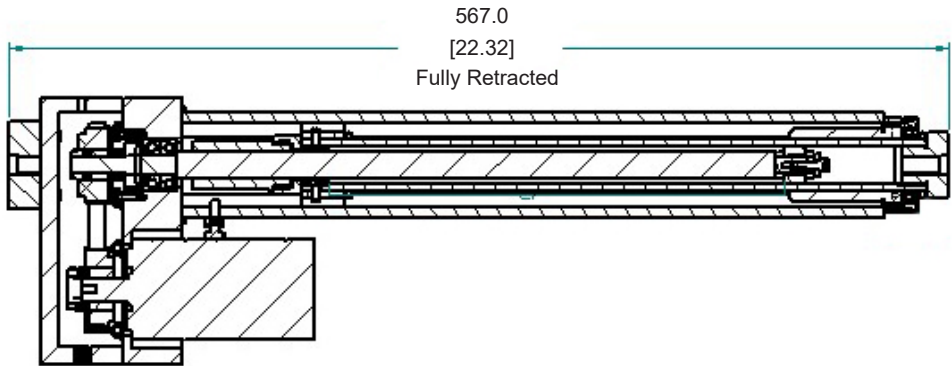
Mikrolar actuators are repeatable, accurate, stiff and durable. They are designed for the most challenging industrial applications and environments. Each of our actuators can also be customized to fit your application. Just let us know about any specific stroke, load, speed or footprint requirements. Our actuators can fit virtually any motor or gearbox the customer requires.



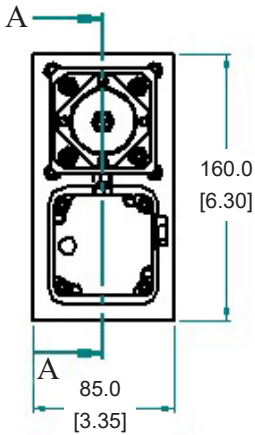
Due to our best in class nose bushing and axis reversal design, all of Mikrolar actuator products are designed to supply superior axial and radial stiffness. For applications requiring extreme precision we can also offer a software map of the screw or provide an exterior scale.

A1250 Actuator:	USCS	METRIC
Stroke	10 in	254 mm
Screw Diameter	0.629 in	16 mm
Screw Lead: 5mm std (2mm & 10mm optional)	0.197 in	5 mm
Max Velocity	15 in/s	381 mm/s
Nominal Velocity	10 in/s	254 mm/s
Dynamic Load Rating	440 lb	200 kg
Max Static Load	2110 lb	957 kg
Weight (w/out motor)	16 lb	7.3 kg

- Environmental Rating: IP54 (std) - IP65 (optional)
- Optional adjustable limit switches
- Available in various mounts:
 - Front and rear flange
 - Clevis
 - Trunnion



SECTION A-A



MADE in the USA

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Mikrolar is now offering its proprietary actuators for sale.

In the production of a quality Stewart Platform, actuator accuracy, axial and radial rigidity are essential.

Why use Mikrolar actuators?

- **Stiffness**
- **Accuracy**
- **Repeatability**

Axial Stiffness:

Most actuators have decent axial stiffness, the ability to resist tension and compression along the length of the rod. (See Fig. 1) Most people equate this with rod diameter and diameter of the screw. But they also need to take into account any backlash from preload on the nut, the drive train and anti-rotation devices. Axial stiffness directly determines accuracy of length, and results in chatter if done poorly.



P2100 Hexapod with Mikrolar actuators.



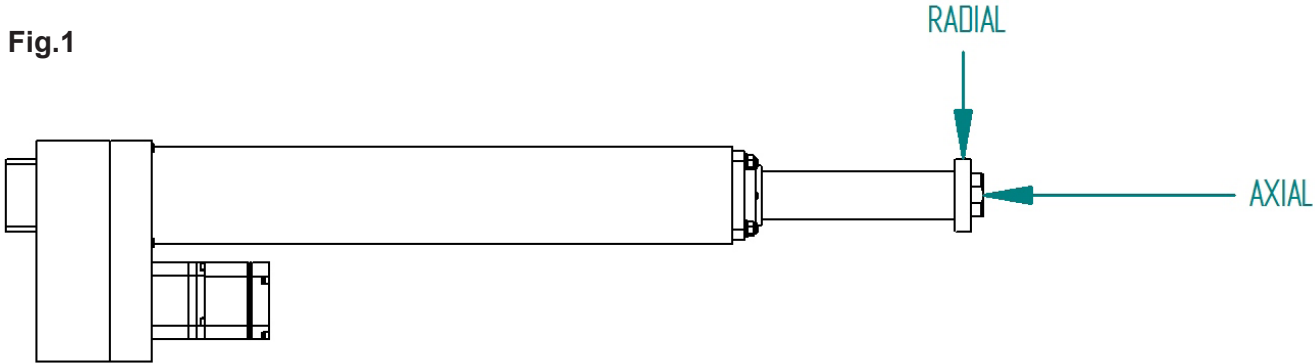
Mikrolar also designs and produces high precision positioning systems for use in a wide variety of applications. Our robots are based on a hexapod system, offering high load capacity and range of movement while maintaining a high degree of precision and repeatability.

Our systems are designed to be customized to fit a variety of applications. Please contact us to discuss how we can create a robotic system to satisfy your requirements.

Radial Stiffness:

Most actuators **do not have** very good radial stiffness, the ability to resist forces from the side. While this might have only a very small affect on the overall length of the actuator (the delta difference is minor) it can cause huge stiffness issues. Radial stiffness directly determines machine stiffness.

Fig.1



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